

REMARKS

In view of the above amendments and following remarks, reconsideration and further examination are requested.

I. 35 U.S.C. § 103(a) Rejection of Claims 21, 22, 25-32 and 36-41

Claims 21, 22, 25-32 and 36-41 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Hiroaki et al. (JP 2001-229542) and Toshiyuki (JP 2000-011453). Claims 21 and 41 have been amended to clarify features of the claimed invention and to distinguish the claimed invention from the above-mentioned references. In addition, claims 22-40 have been cancelled without prejudice or disclaimer of the subject matter recited therein. Therefore, it is respectfully submitted that the above-mentioned rejection is no longer applicable to pending claims 21 and 41 for the following reasons.

Amended independent claim 21 recites an optical recording medium including (1) a main-information area in which a metal reflection film is formed on a substrate where a row of pits is formed as main data. Further, claim 21 recites that the optical recording medium includes (2) a sub-information area in which medium identification information (used for identifying the optical recording medium) is to be recorded by removing the metal reflection film partially so as to form a plurality of reflection-film removed areas. Moreover, claim 21 recites that the optical recording medium includes (3) at least one of a row of pits and a guide groove formed on the substrate in the sub-information area, wherein a track pitch of the at least one of the row of pits and guide groove is at least 0.24μm wide and at most 0.45μm wide. In addition, claim 21 requires that (4) the sub-information area is located inside of the main information area in the

optical recording medium, and (5) a jitter value of the optical recording medium is at most 6.5%, when the optical recording medium is a single recording layer type. Hiroaki and Toshiyuki, or any combination thereof fail to disclose or suggest above-mentioned distinguishing features (1)-(5) as required by claim 21.

Initially, please note that the above-described 35 U.S.C. § 103(a) rejection acknowledges that Hiroaki fails to disclose or suggest the track pitch size, as recited in amended claim 21. In light of the above this rejection relies on Toshiyuki for teaching the above-mentioned features which are admittedly lacking from Hiroaki.

However, Toshiyuki merely teaches that a mass storage capacity (of an optical recording medium) of no less than 8GB is achieved by utilizing a track pitch having a range of 0.27 μm to 0.404 μm (see paragraphs [0004] and [0008]). In other words, regarding the track pitch, Toshiyuki teaches that the track pitch is calculated based on the intended mass storage capacity of the optical recording medium.

Claim 1 requires that the sub-information area is located inside the main information area and is used to record the medium identification information to identify an optical recording medium individually and does not relate to the data capacity of the optical recording medium. For example, in the case of a DVD, the data capacity of the sub-information area and the control data are not included in the data capacity of the DVD (4.7GB). On the other hand, Toshiyuki teaches calculating the track pitch based on the data capacity of the DVD (4.7GB) in quotation (1) (see col. 4, line 59). Therefore, it is noted that, when referring to “mass storage capacity,” Toshiyuki is addressing the data capacity of the main information area of the optical recording medium (see paragraphs [0008] and [0021]).

Thus, in view of the above, it is clear that Toshiyuki teaches adjusting the track pitch of only the main information storage area of an optical recording medium, but fails to disclose or suggest an optical recording medium having a main-information area where a row of pits is formed as main data and a sub-information area in which medium identification information (used for identifying the optical recording medium) is to be recorded, wherein a track pitch of the at least one of the row of pits and guide groove of the sub-information area is at least 0.24μm wide and at most 0.45μm wide, as required by claim 21.

In addition, it is also apparent that Toshiyuki fails to disclose or suggest that the sub-information area, having a track pitch of at least 0.24μm wide and at most 0.45μm wide, is located inside of the main information area in the optical recording medium, as recited in claim 21.

Moreover, it is also apparent that Toshiyuki includes no mention that a jitter value of the optical recording medium is at most 6.5%, when the optical recording medium is a single recording layer type, as required by claim 21.

Regarding Hiroaki, in addition to the features of claim 21 that are admittedly lacking therefrom, it is respectfully submitted that Hiroaki's disclosure of a main information area and a sub-information area storing different information than the information stored on the main information area also fails to disclose or suggest that the jitter value of the optical recording medium is at most 6.5%, when the optical recording medium is a single recording layer type, as required by claim 21.

Finally, it is also noted that the combined teachings of Hiroaki and Toshiyuki would only lead a person of ordinary skill in the art to adjust the track pitch of a main information storage

area of an optical recording medium having a main information storage area and a sub-information storage area, which is still not a disclosure or suggest of the optical recording medium having a main-information area where a row of pits is formed as main data and a sub-information area in which medium identification information (used for identifying the optical recording medium) is to be recorded, wherein a track pitch of the at least one of the row of pits and guide groove of the sub-information area is at least 0.24 μ m wide and at most 0.45 μ m wide, as required by claim 21.

Therefore, because of the above-mentioned distinctions it is believed clear that claim 21 and claim 41 that depends therefrom would not have been obvious or result from any combination of Hiroaki and Toshiyuki.

Furthermore, the present invention of claim 21 is nonobvious because the problems to be solved are new, and the perception based on which the present invention aims to solve the problems is not known by a person of ordinary skill in the art.

The present invention was designed to solve specific problems in an optical recording medium which has a plurality of reflection-film removed areas formed by removing a metal reflection film partially. For example, when the sub-information area is formed by removing a metal reflection film partially with a laser on an area where no pits are formed, and a track pitch of a row of pits is in a certain range, the reflection-film removed area cannot be formed, or a reproduction noise of the sub-information becomes louder, and thereby, an adequate defocus margin could not be secured (see revised version of specification, page 3, line 18 to page 4, line 4).

Furthermore, the present invention was achieved based on a new perception of the

inventors that the metal reflection film, which is formed on the inclined-surface part 4 in the row of pits, becomes thinner than the film thickness of the metal reflection film which is formed on each of a pit-bottom part 5. Therefore, a quantity of heat which is conducted becomes smaller, and a heat capacity of the metal reflection film necessary for re-etching the melting point becomes smaller (see revised version of specification, from page 24, line 12 to page 26, line 25).

On the other hand, Toshiyuki and Hiroaki recognize neither the problems specific to the sub-information area recorded by removing the metal reflection film with the laser, nor the new perception based on which the present invention was made, in addition they fail to disclose that the track pitch of the sub-information storage area is made to be 0.24 μm to 0.45 μm , as mentioned above. Therefore, it is impossible for a person of ordinary skill in the art to predict the effects of this invention by combining Toshiyuki with Hiroaki.

Therefore, there is no disclosure or suggestion in Hiroaki and Toshiyuki or elsewhere in the prior art of record which would have caused a person of ordinary skill in the art to modify Hiroaki and Toshiyuki to obtain the invention of independent claim 21. Accordingly, it is respectfully submitted that independent claim 21 and claim 41 that depends therefrom are clearly allowable over the prior art of record.

II. 35 U.S.C. § 103(a) Rejection of Claims 23, 24 and 33-35

Claims 23, 24 and 33-35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Hiroaki, Toshiyuki and Takeshi (JP 2001-216686). As mentioned above, claims 23, 24 and 33-35 have been cancelled.

Therefore, in view of the above, it is respectfully submitted that this rejection is

considered moot and withdrawal of this rejection is respectfully requested.

III. Conclusion

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance and an early notification thereof is earnestly requested. The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

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